

REMARKS/ARGUMENTS

1. Claims 39-46 are pending herein. Claim 39 has been amended as supported by, for example, original specification, page 6, paragraph [0019]. Claims 42-45 have been withdrawn from consideration by the U.S. PTO as being drawn to a non-elected species, but are being maintained because each claim depends from claim 39.

Claims 39-41 and 46 were rejected under §103(a) over Hayes et al. in view of Zhu et al. To the extent that this rejection might be applied against amended claim 39 (and all claims depending therefrom), it is respectfully traversed.

Pending independent claim 39 recites that a planar antenna is electrically and/or mechanically connected to a circuit board by inserting elastically deformable pins into through holes in the circuit board. Pending claim 39 has been amended to clarify that the elastically deformable pins are detachably inserted into the circuit board through holes. The claimed structure advantageously provides excellent electrical and mechanical connection in a secure and reliable manner without the need to employ a brazing material, for example, for such purposes. Consequently, the claimed detachable antenna component can be easily exchanged with another component when it is necessary to do so.

The PTO acknowledges that Hayes does not disclose that a planar antenna component is connected to a circuit board through the use of elastically deformable pins inserted into through holes in the circuit board. Fig. 5 of Zhu shows a retention mechanism that includes lugs 42 having engaging means 43 inserted into positioning hole 51 of circuit board 5. The engaging means, which is a pair of barbs on opposite lateral edges of each lug, latches to portions of inner surfaces 52 of positioning holes 51 (see column 1, lines 52-55; column 2, lines 51-63).

The stated main goal of Zhu is to prevent solder, which has been applied to the inner surfaces of the circuit board through holes (to insure good electrical connection), from being scraped off of the through hole inner surfaces when the lugs are inserted therein (see column 1, lines 45-48). As such, Applicants respectfully submit that skilled artisans would understand that Zhu's retention mechanism for preventing the unwanted removal of solder from the through hole inner surfaces is not designed to be detachable from the circuit board. In contrast to Zhu, pending claim 39 now recites that the elastically deformable pins are *detachably* inserted into the circuit board through holes. Again, this structure beneficially provides secure and reliable electrical and mechanical connection without the need to employ a brazing or solder material for such purposes. Therefore, even if Hayes and Zhu were combined as asserted in the Office Action, there would still be no disclosure or suggestion of "detachably inserting the elastically deformable pins into the through holes," as claimed. Again, if Zhu's barbed retention mechanism were easily removed, brazing material would be scraped from the inner surfaces of the through holes. This would clearly go against the teachings of Zhu because the result would be poorer electrical connection between Zhu's antenna component and circuit board.

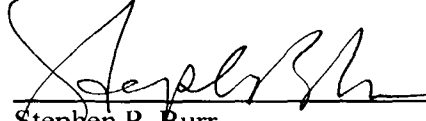
In view of all of the foregoing, reconsideration and withdrawal of the §103(a) rejection are respectfully requested.

The Examiner's attention is drawn to the IDS submitted on July 14, 2003 citing five (5) references for consideration by the PTO. Consideration and entry are respectfully requested.

If the Examiner believes that contact with Applicants' attorney would be advantageous toward the disposition of this case, the Examiner is herein requested to call Applicants' attorney at the phone number noted below.

The Commissioner is hereby authorized to charge any additional fees associated with this communication or credit any overpayment to Deposit Account No. 50-1446.

Respectfully submitted,



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October 10, 2003
Date

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